

ABSTRACT

NOVEL GENES ENCODING PROTEINS HAVING PROGNOSTIC, DIAGNOSTIC, PREVENTIVE, THERAPEUTIC AND OTHER USES

The invention relates to the discovery and characterization of several genes and the
5 polypeptides they encode: thymotaxin (Tango-45), Tango-63d, Tango-63e, Tango-67, and
huchordin (Tango-66). Thymotaxin is a new member of the C-C family of chemokines.
Tango-63d and Tango-63e are two novel polypeptides within the tumor necrosis factor
(TNF) receptor superfamily. Tango-67 is related to a number of growth factors, particularly
10 members of the connective tissue growth factor family. Huchordin is related to chordin, a
known protein that is involved in the induction of twinned axes, can completely rescue axial
development in ventralized embryos, is a potent dorsalizing factor, and plays a crucial role in
regulating cell-cell interactions in the organizing centers of head, trunk, and tail
development. The invention encompasses nucleic acid molecules encoding nucleic acids and
15 polypeptides of the invention, or mutant forms thereof that encode dysfunctional receptor
polypeptides, vectors containing these nucleic acid molecules, cells harboring recombinant
DNA molecules encoding nucleic acids or polypeptides of the invention, or mutant forms
thereof, host fusion proteins that include functional or dysfunctional polypeptides of the
invention, transgenic animals that express nucleic acids or polypeptides of the invention,
20 screening methods and therapeutic methods employing the nucleic acid molecules and
polypeptides described above, substantially purified nucleic acids and polypeptides of the
invention, and therapeutic compositions containing these nucleic acid molecules and
polypeptides.

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